

## Anti-DMC1 [2H12/4] Standard Size Ab01311-1.6

This is a Fab fragment with a his-tag. Developed in partnership with Ximbio ([www.ximbio.com](http://www.ximbio.com)).

This reformatted mouse antibody was made using the variable domain sequences of the original Mouse IgG2a format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Mouse Fab fragment, His-Tagged, Kappa

**Clone Number:** 2H12/4

**Alternative Name(s) of Target:** Meiotic recombination protein DMC1/LIM15 homolog; DMC1H; LIM15; MGC150473; MGC150472; HsLim15; DMC1 homologue; disrupted meiotic cDNA1; hDMC1

**UniProt Accession Number of Target Protein:** Q14565

**Published Application(s):** IP, WB, IF, IHC

**Published Species Reactivity:** Cow, Rat, Human, Mouse

**Immunogen:** This antibody was raised against human DMC1 protein (expressed originally as a 6xHis fusion in *E. coli*).

**Specificity:** This antibody is specific for DMC1 and does not cross-react with the related protein Rad51. DMC1 is a RecA/RAD51 homologue which is specific for meiosis and critical for meiotic recombination in Eukaryota.

**Application Notes:** IF: 2H12/4 anti-DMC1 antibody was used to visualise DMC1 on chromatin in I-L2-NS endopolyploid tumour cells in experiments investigating the role of another protein - REC8 in chromosome segregation after radiation (Erenpreisa et al., 2009). This antibody was also utilised to stain paraffin-embedded cervical cancer tissue samples against DMC1 (Ianzini et al., 2009). IF: Hopkins et al. (2014) successfully used this antibody to stain chromatin spreads from purified testicular germ cells of Stag3+/- and Stag3-/- mice for DMC1 in the studies on the role of Stag3. IF: Another group also used this antibody for the immunofluorescence staining of spermatocyte chromosome spreads against DMC1 in a study analysing proteins involved in telomeres' attachment to the nuclear envelope (Wang et al., 2019).

**Antibody First Published in:** Erenpreisa et al. The role of meiotic cohesin REC8 in chromosome segregation in γ irradiation-induced endopolyploid tumour cells *Exp Cell Res.* 2009 Sep 10;315(15):2593-603. doi: 10.1016/j.yexcr.2009.05.011. Epub 2009 May 20. [PMID:19463812](#)

**Note on publication:** This article describes the earliest use of this anti-DMC1 antibody. It was utilised to visualise DMC1 protein on chromosomes of endopolyploid tumour cells in experiments investigating the role of another protein - REC8 in chromosome segregation after radiation.

## Product Form

**Size:** 100 µg Purified antibody.

**Purification:** Purified by Immobilized Metal Affinity Chromatography

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.